Greater Houston/College Station Area Subject Matter Expert – Science

Exemption Status/Test: Exempt
Reports to: Area Academic Director / District Science Director
Department/School: Curriculum and Instruction

Primary Purpose

The Greater Houston/College Station Area Subject Matter Expert – Science reports directly to the Area Academic Director (51%) and District Science Director (49%). The Science Subject Matter Expert, in collaboration with the District Science Director, is responsible for ensuring high-quality science instruction is being delivered K–12 at all campuses within the assigned Area and for supporting teachers in the design and implementation of rigorous, standards-aligned science instruction.

The Science Subject Matter Expert provides leadership regarding **how science content is taught**, including inquiry-based instruction, scientific and engineering practices, laboratory investigations, hands-on learning, data analysis, academic vocabulary, and the integration of conceptual understanding with application.

An effective Area Science Subject Matter Expert will spend approximately **40% of their time** preparing and supporting curriculum, instructional best practices, assessment and data analysis, and leading teachers in charter-wide and Area professional learning communities.

Approximately **50% of their time** will focus on program implementation, campus support, coaching Science Instructional Coaches and teachers, monitoring the implementation of district science curriculum and programs, and providing administrators and deans with high-impact feedback regarding program implementation, instructional quality, science laboratory practices, and teachers in need of additional support.

Approximately **10% of their time** will be spent in Area and content collaboration, operational meetings, science program coordination, and other activities necessary to ensure alignment across the charter and the assigned geographic Area.

The Science Subject Matter Expert will also provide leadership and support for the effective operation of **middle school and high school science laboratories**, including laboratory safety

expectations, equipment and materials management, chemical safety, appropriate storage and disposal practices, and implementation of district laboratory procedures.

This position supports campuses throughout the **Greater Houston and College Station Area** and requires **regular travel between Greater Houston campuses and College Station campuses**. The successful candidate must be willing and able to travel to College Station as necessary to provide on-site instructional coaching, professional development, program monitoring, classroom support, laboratory reviews, and other Area-level academic support.

While SMEs primarily support their assigned Area, they also support charter-wide science curriculum, professional development, science programming, and instructional initiatives and may be required to travel, train, and present professional development in other charter Areas.

Additional duties include, but are not limited to, collaborating with Academic Coordinators, researching and attending professional development regarding best practices in science education, providing professional development for staff, reviewing and analyzing student data, facilitating data conversations, coordinating staff development with principals, supporting science laboratory implementation, and maintaining appropriate records and logs.

Qualifications

Education/Certification

- Bachelor's Degree in Education, Science, or related field
- Master's degree preferred
- Valid Texas teaching certificate with appropriate Science or content endorsement preferred

Special Knowledge/Skills

- Knowledge of science curriculum design, implementation, and vertical alignment
- Strong knowledge of Texas science standards and science instructional practices
- Knowledge of inquiry-based instruction, scientific and engineering practices, laboratory investigations, and hands-on science instruction
- Ability to interpret student achievement data and evaluate instructional programs and teaching effectiveness
- Ability to develop and deliver effective professional learning to adult learners
- Strong organizational, communication, presentation, and interpersonal skills
- Demonstrated evidence of leadership responsibilities beyond those required in the classroom

- In-depth knowledge of curriculum, instructional best practices, DLI programs, and adult learning theories
- Effective instructional delivery techniques and the ability to coach, guide, and develop teachers
- Knowledge of **middle school and high school science laboratory operations and safety practices**
- Knowledge of appropriate **chemical storage, labeling, inventory, handling, and disposal procedures**
- Knowledge of laboratory equipment, personal protective equipment (PPE), Safety Data Sheets (SDS), emergency equipment, and laboratory safety procedures
- Ability to identify science laboratory instructional and safety needs and work collaboratively with campus and district leadership to address those needs
- Ability to establish and maintain effective working relationships with teachers, administrators, students, parents, community members, vendors, and other stakeholders
- Ability and willingness to **travel regularly throughout the Greater Houston/College Station Area, including required travel to College Station campuses**

Experience

- Minimum of two years of successful teaching experience
- Experience coaching teachers in research-based instructional practices for science
- Experience as a science content teacher preferred
- Middle school and/or high school science teaching experience preferred
- Experience teaching laboratory-based science courses preferred
- Experience supporting or managing science laboratories, science materials, or laboratory safety programs preferred
- Experience facilitating science professional development preferred

Major Responsibilities and Duties

Staff Development and Instructional Leadership

1. Work cooperatively with Academic Coordinators, District Science leadership, Area Academic Directors, campus administrators, and Area Content Instructional Coaches to mutually support the mission of ILTexas.
2. Assist and support K–12 science teachers throughout the Greater Houston/College Station Area.

3. Advance teachers' deep understanding and application of science content knowledge, scientific and engineering practices, inquiry-based learning, and research-based instructional strategies to help students meet rigorous academic standards.
4. Provide classroom-based coaching and support for the implementation of new and/or refined science instructional practices.
5. Facilitate vertical alignment and collaborative planning across grade levels and science courses.
6. Support alignment between elementary, middle school, and high school science instruction to ensure students develop progressively deeper scientific understanding and laboratory skills.
7. In conjunction with District and Area Academic leadership, create structures and processes for collaborative work that promote collegiality and shared responsibility.
8. Model effective collaboration, instructional coaching, and professional learning practices.
9. Ensure time available for professional learning and collaboration is used to enhance the quality of science teaching and student learning.
10. Engage teachers and instructional leaders in the analysis and interpretation of data from multiple sources to determine student, teacher, campus, and program needs.
11. Assist in the design and implementation of high-quality school-, Area-, and team-based professional learning supporting science teachers and student achievement.
12. Articulate the intended results of professional learning on teacher practice, student achievement, science instruction, and laboratory experiences.
13. Facilitate the analysis of student achievement and teacher professional development data to determine its impact on student learning and teacher practice.
14. Increase teachers' capacity to analyze research, student work, assessment results, and laboratory evidence to make effective instructional decisions.
15. Advance teachers' understanding and use of formative and summative assessment strategies to evaluate student progress and improve instructional practices.
16. Serve as a resource to support job-embedded professional learning and improved academic achievement in science.

Science Curriculum and Program Implementation

17. Support the implementation of district science curriculum, instructional resources, assessments, laboratory investigations, and science programs across K–12 campuses.
18. Monitor the fidelity and effectiveness of district science curriculum implementation and provide actionable feedback to teachers, instructional coaches, and campus administrators.
19. Assist in evaluating science instructional materials, laboratory investigations, digital resources, equipment, and supplemental programs.

20. Collaborate with District Science leadership to identify curriculum gaps, resource needs, instructional trends, and opportunities for improved vertical alignment.
21. Support teachers in integrating laboratory and hands-on experiences with content instruction rather than treating laboratory activities as isolated instructional events.
22. Promote student-centered science instruction that emphasizes questioning, investigation, evidence, reasoning, modeling, problem solving, and scientific communication.
23. Support implementation of appropriate instructional practices for advanced science courses, including high school laboratory sciences and Advanced Placement science courses, where applicable.

Middle School and High School Laboratory Oversight and Safety

24. Provide Area-level instructional and operational oversight and support for **middle school and high school science laboratories** in collaboration with campus administrators, District Science leadership, teachers, and appropriate operations personnel.
25. Establish, communicate, monitor, and support consistent implementation of district expectations for **science laboratory safety**.
26. Conduct periodic reviews of middle school and high school science laboratories to identify instructional, equipment, storage, organization, and safety needs.
27. Support campuses in maintaining appropriate laboratory safety equipment, including but not limited to **safety goggles, personal protective equipment, eyewash stations, safety showers where applicable, fire extinguishers, fire blankets, ventilation systems, spill response materials, and other required safety equipment**.
28. Support proper maintenance, accessibility, and use of **Safety Data Sheets (SDS)** for chemicals and laboratory materials.
29. Provide guidance regarding the appropriate **labeling, storage, segregation, handling, inventory, and disposal of chemicals and laboratory materials** consistent with district procedures and applicable requirements.
30. Work with campus administrators and District Science leadership to identify expired, damaged, unidentified, unnecessary, or potentially hazardous chemicals and materials requiring appropriate removal or disposal.
31. Assist campuses in developing and maintaining accurate inventories of chemicals, laboratory equipment, consumable materials, and safety equipment.
32. Support teachers in selecting laboratory investigations appropriate for the grade level, course, available facilities, equipment, materials, and student readiness.
33. Ensure laboratory activities supported or recommended through district curriculum incorporate appropriate student safety procedures, teacher preparation requirements, and risk-reduction strategies.

34. Support the development and implementation of student laboratory safety expectations, safety contracts, procedures, and instructional routines.
35. Provide or coordinate professional development regarding science laboratory safety, chemical handling, laboratory procedures, equipment use, emergency response, and safe instructional practices.
36. Work collaboratively with campus and district leadership when laboratory safety concerns are identified and assist with the development of corrective actions.
37. Advise District Science leadership regarding laboratory equipment, consumables, chemicals, facilities, safety equipment, replacement cycles, and other science program resource needs.
38. Support planning for science laboratory setup, renovation, expansion, or equipment acquisition when requested.
39. Maintain awareness of applicable federal, state, local, and district requirements and recommended practices related to school science laboratory safety and communicate relevant information to appropriate stakeholders.
40. Promote a district-wide culture in which **laboratory safety is an integral component of high-quality science instruction and is the shared responsibility of students, teachers, administrators, and district leadership.**

Data Analysis and Continuous Improvement

41. Analyze district, campus, classroom, benchmark, state assessment, and other science achievement data to identify instructional strengths, gaps, and trends.
42. Support campuses in using science assessment data to identify students requiring intervention, acceleration, or additional instructional support.
43. Assist teachers and instructional coaches in connecting assessment results to standards, curriculum, instructional practices, and student misconceptions.
44. Use classroom observations, student work, assessment results, laboratory implementation, and other evidence to evaluate science program effectiveness and recommend improvements.
45. Communicate science instructional trends, program needs, areas of concern, and successful practices to District Science leadership and Area leadership.

Other

46. Compile, maintain, and file reports, records, laboratory review documentation, inventories, professional development records, and other documents as required.
47. Comply with policies established by federal and state law, State Board of Education rule, and local board policy.
48. Follow district safety protocols and emergency procedures.

49. Maintain appropriate confidentiality regarding student, employee, campus, and district information.
50. Keep the District Science Director, Area Academic Director, Area Superintendent, campus leadership, and other appropriate stakeholders informed of activities, progress, obstacles, science program needs, laboratory concerns, and successes in student achievement and teacher practice.
51. Participate in regular campus visits throughout the Greater Houston/College Station Area, including visits to classrooms and middle school/high school science laboratories.
52. **Regular travel to College Station campuses is an essential function of this position.** The Science Subject Matter Expert will be expected to provide in-person instructional, coaching, laboratory, professional development, and program support to College Station campuses based on campus and Area needs.
53. Travel extensively throughout the Greater Houston/College Station Area and, when required, to other district locations, professional conferences, trainings, and meetings.
54. Perform any and all additional duties assigned by the immediate supervisor.

Supervisory Responsibilities

None.

The position provides **instructional leadership, coaching, program monitoring, and science laboratory oversight** but does not directly supervise campus or district employees unless otherwise assigned.

Mental Demands/Physical Demands/Environmental Factors

Tools/Equipment Used: Standard office equipment including personal computer and peripherals; science laboratory equipment and safety equipment as necessary for observation, training, demonstration, and program evaluation.

Posture: Prolonged sitting; frequent standing and walking during campus, classroom, and laboratory visits; occasional bending/stooping, pushing/pulling, and twisting.

Motion: Repetitive hand motions, frequent keyboarding and use of mouse; occasional reaching; movement throughout classrooms and laboratory environments.

Lifting: Occasional lifting and carrying of instructional resources, laboratory equipment, and materials.

Environment: Work inside; frequent travel throughout the Greater Houston/College Station Area; **regular travel to College Station campuses**; occasional statewide travel; periodic work within classroom and science laboratory environments.

Mental Demands: Work with frequent interruptions; manage multiple priorities; communicate effectively with diverse stakeholders; exercise sound professional judgment regarding instructional and laboratory safety concerns; maintain emotional control under stress.

This document describes the general purpose and responsibilities assigned to this job and is not an exhaustive list of all responsibilities and duties that may be assigned or skills that may be required.